



NOVEMBER 2021 NUTRITION RESEARCH REVIEW

Impact of β -hydroxy- β -methylbutyrate (HMB) on muscle loss and protein metabolism in critically ill patients: a RCT

Publication: Clinical Nutrition

Publish Date: August 2021

Authors: Marina V Viana, Fabio Becce, Olivier Pantet, Sabine Schmidt, Géraldine Bagnoud, John J Thaden, Gabriella A M Ten Have, Mariëlle P K J Engelen, Aline Voidey, Nicolaas E P Deutz, Mette M Berger

This prospective randomized, placebo-controlled double-blind trial aimed to determine whether β -hydroxy- β -methylbutyrate (HMB) (3 g/day for 30 day vs placebo) can attenuate the process of muscle wasting in the intensive care unit (ICU). In the study, 30 patients completed the trial, and the results showed that the loss of total skeletal muscle area (SMA) was 11% between days 4 and 15 ($p < 0.001$), but not different between the groups ($p = 0.86$). In the HMB group, net protein breakdown and production of several amino acids was significantly reduced, while phase angle increased more, and SF-12 global health improved more. Overall, this study demonstrated that HMB treatment did not significantly reduce muscle wasting over 10 days of observation (primary endpoint), but resulted in significantly improved amino acid metabolism, reduced net protein breakdown, a higher phase angle and better global health.

[READ ARTICLE](#)

Malnutrition in patients with COVID-19: assessment and consequences

Publication: Current Opinion in Clin Nutrition and Metabolic Care

Publish Date: August 2021

Authors: Barbara S van der Meij, Gerdien C Ligthart-Melis, Marian A E de van der Schueren

This review summarizes the most up-to-date research on nutritional assessment and mortality and morbidity risk in patients with COVID-19. Numerous studies have shown a high prevalence of nutrition-impact symptoms, malnutrition, micronutrient deficiencies and obesity in patients with COVID-19, all of which were associated with increased mortality and morbidity risks. Early screening and assessment of malnutrition, muscle wasting, obesity, nutrition impact symptoms and micronutrient status in patients with COVID-19, followed by pro-active nutrition support, is warranted and expected to contribute to improved recovery.

[READ ARTICLE](#)

Dietary intake patterns of community-dwelling older adults after acute hospitalization

Publication: The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences

Publish Date: August 2021

Authors: Rachel R Deer, Erin Hosein, Alejandra Mera, Kristen Howe, Shawn Goodlett, Nicole Robertson, Elena Volpi

The objective of this study was to determine dietary intakes and nutrient distribution patterns of community-dwelling older adults after acute hospitalization. The study results showed that most participants did not meet current recommendations for energy, fruit, vegetables, or fluids. Average protein consumption was significantly higher than the current recommendation of 0.8g/kg/day; however only 55% of participants met this goal, and less than 18% met the 1.2 g/kg/day proposed optimal protein intake for older adults. The protein distribution throughout the day was skewed and no one met the 0.4 g/meal protein recommendation at all meals. These data highlight the need for better nutritional evaluation and support of geriatric patients recovering from hospitalization.

[READ ARTICLE](#)

Handgrip strength as a surrogate marker of lean mass and risk of malnutrition in paediatric patients

Publication: Clinical Nutrition

Publish Date: August 2021

Authors: Shona Mckirdy, Ben Nichols, Sarah Williamson, Konstantinos Gerasimidis

This study explored the utility of handgrip strength (HGS) z-scores as markers of body composition and screening of malnutrition risk in sick children. Data from 535 healthy children aged 5-16 years were used for the development of HGS centiles. In 595 sick children, relationships between HGS z-scores with body composition, malnutrition risk, length of hospital stay (LOS) and biomarkers of disease severity were explored. HGS z-scores were predictive of fat-free mass (FFM) in sick and healthy (all $p < 0.001$) and could complement assessment of malnutrition risk, and may help identify children for further dietetic intervention on admission to hospital.

[READ ARTICLE](#)

Monitoring growth and body composition: new methodologies

Publication: World Review of Nutrition and Dietetics

Publish Date: August 2021

Authors: Sarah N Taylor, Catherine O Buck

Growth monitoring of the preterm infant integrates the physiology of fetal growth, critical care fluid management, and the progression of infant body composition, all of which have important short- and long-term consequences. This publication highlights how preterm infant growth monitoring is essential to preterm infant care and discusses the strengths and weaknesses of current methodologies for growth monitoring. Research in modalities for body composition monitoring is growing with clinical utility on the horizon. In preterm infant growth and body composition measurement, change in parameters over time appears to be a better marker for outcomes than a specific parameter or z-score at one point in time.

[READ ARTICLE](#)

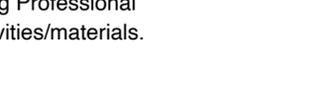
Want to share this newsletter?

Forward it to your colleagues and let them know they can [subscribe here](#).

Abbott Nutrition Health Institute is an approved provider of continuing nursing education by the California Board of Registered Nursing Provider #CEP 11213.



Abbott Nutrition Health Institute is a Continuing Professional Education (CPE) Accredited Provider with the Commission on Dietetic Registration (CDR). CDR Credentialed Practitioners will receive Continuing Professional Education Units (CPEUs) for completion of these activities/materials.



[EDUCATION](#)

[CONFERENCES](#)

[RESOURCES](#)

[GRANTS](#)

[SITE MAP](#)

[CONTACT US](#)

[PRIVACY POLICY](#)

[TERMS OF USE](#)

[NEWSROOM](#)

[ABBOTT GLOBAL](#)

[ABBOTT NUTRITION](#)

[MQII](#)

[ANHI COMMUNITY](#)

[UNSUBSCRIBE](#)

Making an everlasting impact on human health for 125 years.

